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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/758,610 | 01/11/2001 | Sylvia H. Pas | T1-22398 | 8979 |
| 23494 | 7590 | 11/26/2003 | EXAMINER | |
| TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265 | | | MOORE, KARLA A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1763 | |

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,610

Applicant(s)

PAS, SYLVIA H.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 0903. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 5-8, 10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,178,660 to Emmi et al. in view of U.S. Patent No. 5,609,689 to Kato et al.

4. Emmi et al. disclose the processing system substantially as claimed in Figure 6 and comprising: a process module (62) operable to intentionally add at least one film layer to a single semiconductor wafer (column 6, rows 61-64); and a transfer chamber module (10), the transfer chamber module operable to expose the semiconductor wafer to a vaporous solution (column 7, rows 32-34 and column 8, rows 25-39).

5. Examiner notes that in the passage at column 8, rows 25-39, Emmi et al. teach that the transfer module may be used for exposure to materials and processes other than those explicitly mentioned in the illustrated embodiments. These processes include chemical vapor deposition (CVD), which indicates that the module is structurally capable of accommodating a vaporous solution. Examiner also notes that Emmi et al. teach that HF may be used, as taught in the present invention.

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6. However, Emmi et al. fail to teach the transfer chamber module capable of aligning a semiconductor wafer for the process module.

7. Kato et al. teach providing an alignment mechanism in a transfer chamber for the purpose of aligning the center and orientation flat of a wafer (column 3, rows 25-27).

8. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided an alignment mechanism in the transfer chamber module of Emmi et al. in order to align the center and orientation flat of a wafer as taught by Kato et al.

9. With respect to claims 2-3, 5-7 and 10 and 12-13 and the limitations drawn to the composition of the "vaporous solution" and the object treated, the courts have ruled that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969).

10. The courts have also ruled, that the inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)).

11. With respect to claim 8, the transfer chamber module may further comprise: a wafer support (figure 6, 38) and a plurality of outlets (Figure 1, 20; column 4, rows 41-44).

12. With respect to claim 11, the wafer support is rotatable around the conveyor rollers (see Figure 6).

13. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emmi et al. and Kato et al. as applied to claims 1-3, 5-8 and 10-13 above, and further in view of Japanese Patent No. 09-157073 A to Mitani et al.

14. Emmi et al. disclose the invention substantially as claimed and as described above.

15. However, Emmi et al. fail to teach the transfer chamber module comprising one of the group consisting of synthetic resinous fluorine-containing polymer, polytetrafluoroethylene and silicon carbide.

16. Mitani et al. teach the use of a processing chamber comprising silicon carbide for the purpose preventing corrosion and cracks during processing (abstract).

6. However, Emmi et al. fail to teach the transfer chamber module capable of aligning a semiconductor wafer for the process module.

7. Kato et al. teach providing an alignment mechanism in a transfer chamber for the purpose of aligning the center and orientation flat of a wafer (column 3, rows 25-27).

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22. Rejections relying upon Nishimura et al. have been dropped as a result of the argument based on the Kato et al. rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 703.305.3142. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703.308.1633. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.

km
21 November 2003

*Primary Examiner
AV 1763
P. Hellenz*